



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> <b>PCT/US98/01727</b> <b>(22) International Filing Date:</b> <b>30 January 1998 (30.01.98)</b>  <b>(30) Priority Data:</b> <div style="display: flex; justify-content: space-between;"> <div>60/036,988</div> <div>30 January 1997 (30.01.97)</div> <div>US</div> </div> <div style="display: flex; justify-content: space-between;"> <div>09/014,193</div> <div>27 January 1998 (27.01.98)</div> <div>US</div> </div> <b>(71) Applicant:</b> <b>APPLIED SCIENCE FICTION, INC. [US/US];</b> <b>Suite 500, 3925 West Braker Road, Austin, TX 78759-5321</b> <b>(US).</b>  <b>(72) Inventor:</b> <b>EDGAR, Albert, D.; 3912 Eton Lane, Austin, TX</b> <b>78727-6069 (US).</b>  <b>(74) Agents:</b> <b>GLENN, Michael, A. et al.; Law Offices of Michael</b> <b>A. Glenn, P.O. Box 7831, Menlo Park, CA 94026 (US).</b>		<b>(81) Designated States:</b> <b>AL, AU, BA, BB, BG, BR, CA, CN, CU,</b> <b>CZ, EE, GE, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT,</b> <b>LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK,</b> <b>SL, TR, TT, UA, UZ, VN, YU, ARIPO patent (GH, GM,</b> <b>KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ,</b> <b>BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE,</b> <b>CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,</b> <b>PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN,</b> <b>ML, MR, NE, SN, TD, TG).</b>  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims</i> <i>and to be republished in the event of the receipt of amendments.</i>  <b>(88) Date of publication of the international search report:</b> <b>10 December 1998 (10.12.98)</b>
<b>(54) Title: SYSTEM AND METHOD FOR LATENT FILM RECOVERY IN ELECTRONIC FILM DEVELOPMENT</b>		
<b>(57) Abstract</b>  <p>Recovering the dye image on film in electronic film development following a latent holding stage obviates the problem common in prior art electronic film development of film image destruction. Recovery of the image is accomplished using a developing agent containing couplers to form a dye image. These dyes do not affect the infrared scans of the image. Upon complete development of the dye image, further dye formation is halted by the application of a coupler blocking agent, while silver development and electronic scanning may continue or halt. After halting dye formation, the film is stable for an arbitrary time in a latent stage and may be dried and stored. Following this latent stage, silver is removed from the film with a bleach-fix leaving a conventionally usable film image.</p>		

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US98/01727

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : Please See Extra Sheet.

US CL : 430/357, 359, 363, 470; 396/600, 648; 358/496, 497, 501

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 430/357, 359, 363, 470; 396/600, 648; 358/496, 497, 501

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,576,836 A (SANO et al) 19 November 1996 at figures 1 and 5A and column 2, line 63 to column 10, line 46.	1-34
Y	US 5,447,811 A (BUHR et al) 05 September 1995 at figures 8 and 12 and column 2, line 51 to column 28, line 20.	1-34
Y, P	US 5,667,944 A (REEM et al) 16 September 1997 at figures 1 and 2 and column 6, line 15 to column 17, line 43.	1-34
Y, P	US 5,691,118 A (HAYE) 25 November 1997 at column 2, line 22 to column 12, line 39.	1-34
Y, P	US 5,695,914 (SIMON et al) 09 December 1997 at column 2, line 48 to column column 23, line 2.	1-34



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

03 SEPTEMBER 1998

Date of mailing of the international search report

14 OCT 1998

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/01727

**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US98/01727

**Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)**

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐

The additional search fees were accompanied by the applicant's protest.

☒

No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/01727

## A. CLASSIFICATION OF SUBJECT MATTER: IPC (6):

G03C 7/30, 7/407, 11/16; G03D 3/00, 15/02; H04N 1/04, 1/46

## BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

Group I, claims 1-20 and 23-33, drawn to a method for latent film recovery and for use with an apparatus.

Group II, claims 21-22, drawn to another distinctive method for a latent film recovery.

Group III, claim 34, drawn to another distinctive apparatus.

The inventions listed as Groups I, II and III do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical steps in the methods or features in the apparatus for the following reasons: (1) The main invention with respect to the method claims 1-20 requires (a) the use of the specific first developing agent containing a coupler and (b) a selected light for an illumination as compared to the distinctive method claims 21-22 which is distinctively required (a) the use of the specific first developing agent containing no coupler and (b) a coupler being applied in a later step. (2) The main invention with respect to the apparatus claims 23-33 requires (a) feed spool and (b) a coupler in activation station as compared to the distinctive apparatus claims 34 which is distinctively required (a) a means for applying the specific first developing agent containing no coupler and (b) a means for separately applying a coupler. Accordingly, each of the above inventions has acquired its own distinctively inventive steps and features. None of them is so linked to be or form a single inventive concept which is considered to be an obvious variation in the art that would be required no separate consideration or search in the art for the distinctive invention as divided by applicants in accordance with PCT Rule 13.1 and 13.2.

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